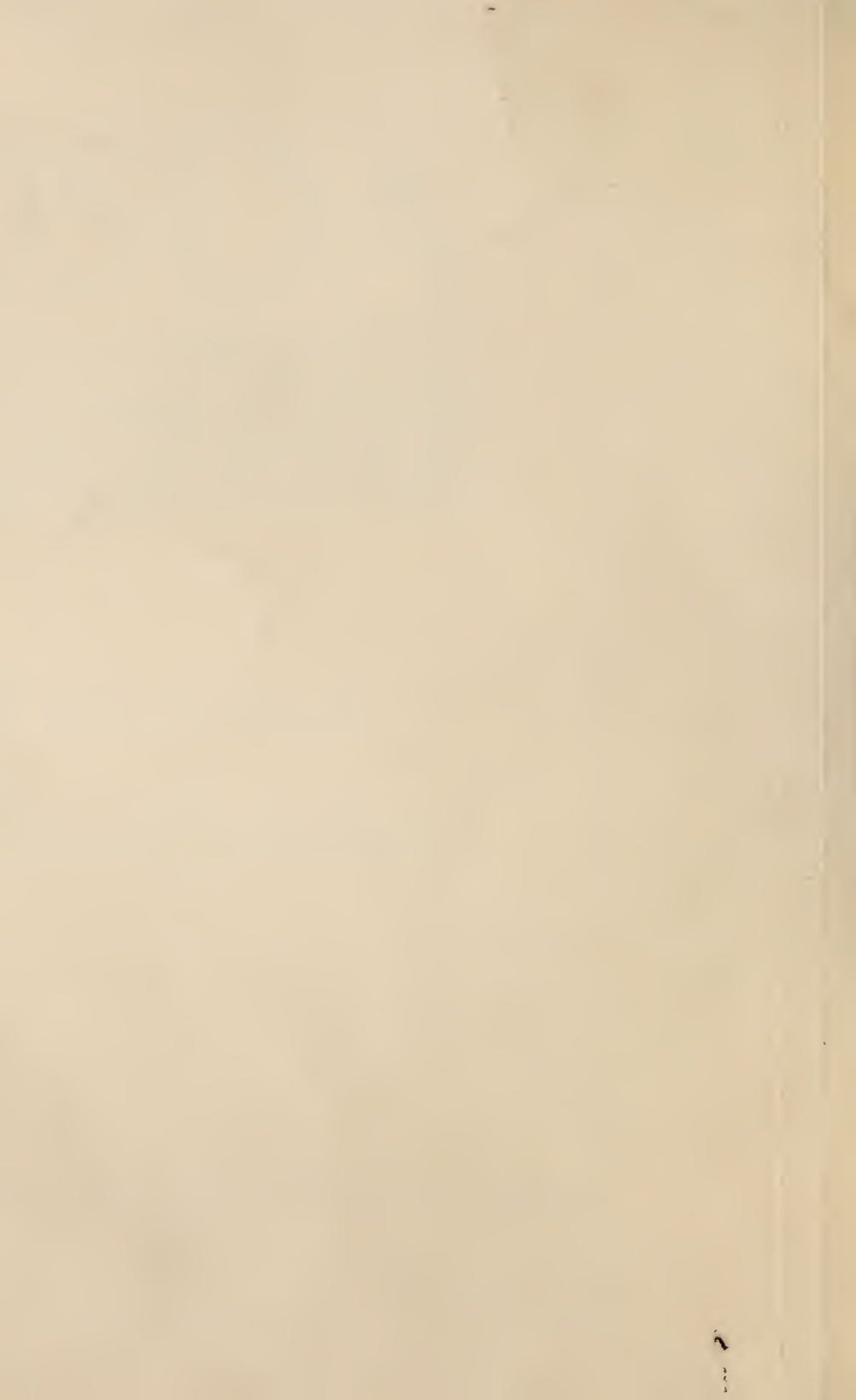


Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.



FILE ONLY

**PULPWOOD
PRODUCTION**
**in the Northeast
1968**



**by James T. Bones
and Neal P. Kingsley**

**U.S.D.A. FOREST SERVICE RESOURCE BULLETIN NE-15
1969**

**NORTHEASTERN FOREST EXPERIMENT STATION, UPPER DARBY, PA.
FOREST SERVICE, U. S. DEPARTMENT OF AGRICULTURE
RICHARD D. LANE, DIRECTOR**

The Authors

JAMES T. BONES, research forester, received his bachelor's degree in soil conservation from Utah State University in 1952 and his master's degree in forest management from the same university in 1956. He worked in Forest Survey at the Pacific Northwest Station and the Institute of Northern Forestry before transferring to the Northeastern Forest Experiment Station in March 1968. He is now stationed in Upper Darby, Pa., where he is working in the timber-removals phase of Forest Survey.

NEAL P. KINGSLEY, research forester, received his bachelor's degree in forestry from the University of New Hampshire in 1961 and his master's degree in forest economics from the same university in 1963. He joined the Northeastern Forest Experiment Station in August 1962 and has been stationed since that time in Upper Darby, Pa., where he is a resource analyst in the Experiment Station's Forest Survey unit.

**PULPWOOD
PRODUCTION
in the Northeast
1968**

COVER PHOTO CREDIT—N.Y.S. Conservation Department.



Background

THIS REPORT is based on a canvass of all pulpmills in the Northeast that use wood—either round wood or chips—as a basic raw material for a variety of products. Mills that use woodpulp as a raw material for insulation board and hardboard were also included in the canvass. However, the canvass did not include mills that use waste paper, rags, or pulping material other than wood. And it did not include hardboard plants that impregnate wood flour, flakes, or chips with glues or resins in manufacturing their products.

The roundwood production statistics reported in this bulletin are based upon pulpmill receipts, so they are subject to fluctuations caused by uneven wood-inventory buildups or liquidations from year to year. The wood-chip production and receipt statistics are mostly for chipped plant byproducts received at the pulpmill, but may also include small amounts of chipped roundwood. This year the chip statistics also include for the first time “other wood-industry byproducts”; and where comparisons have been made, the statistics from previous years have been adjusted to include this category of material.

Pulpwood Production Declines

Pulpwood production in the Northeast in 1968 decreased slightly more than 1 percent from the 1967 record high of over 6 million cords. This modest decrease was due mainly to a slackening in roundwood production. Total pulpwood production in the 14 Northeastern States¹ amounted to 5,961,600 cords in 1968. This is 62,000 cords less than the 1967 total of 6,023,600 cords (fig. 1).

This 1-percent decrease is the first one experienced since these annual canvasses were begun in 1963. It no doubt is an extension of the production slowdown mentioned in the 1967 pulpwood report.

Receipts of pulpwood at northeastern woodpulp mills totaled 6,311,300 cords in 1968. Of this, 3,514,900 cords came from softwood trees and 2,796,400 cords from hardwood trees (table 2). Thus, total receipts exceeded total production by

¹Connecticut, Delaware, Kentucky, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, and West Virginia.

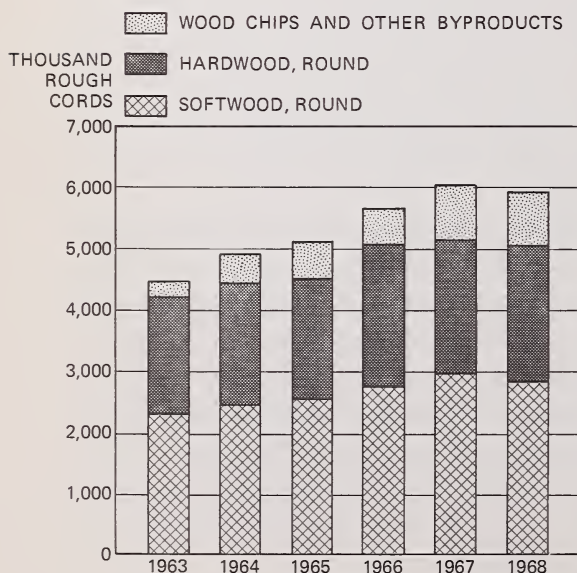


Figure 1.—Total pulpwood production in the 14 states of the Northeast, 1963-68.

349,700 cords. Five of the 14 states (Connecticut, Delaware, Kentucky, Vermont, and West Virginia) produced more wood than they received. Delaware and West Virginia had no operating woodpulp mills, while Vermont, Kentucky, and Connecticut each had one.

Production and receipts of hardwood pulpwood are more or less in balance in the Northeastern States. Most of the region's pulpwood production deficit was made up by softwood shipments from Canada.

Round Pulpwood Down More Than 5 Percent

The production of round pulpwood decreased 292,400 cords—about 5.5 percent—under that of 1967. In 1968 round pulpwood production in the Northeast totaled 5,020,900 cords, compared with 5,313,300 cords in 1967. This 1967-68 decrease compares with a 3-percent gain between 1966 and 1967, and a 12-percent 1965-66 gain.

Round pulpwood receipts by woodpulp mills in the Northeast totaled 5,364,000 cords in 1968 (table 5). Receipts exceeded roundwood production by 343,100 cords—a 7 percent surplus.

This year's round pulpwood production was up from 1967 in only two states—Maryland and New Hampshire. Delaware, New York, Ohio, Pennsylvania, and West Virginia registered production losses of over 10 percent.

Seventeen Counties Top 50 Thousand Cord Mark

Seventeen counties in seven states produced over 50 thousand cords of roundwood pulpwood in 1968. This is a 3-county drop from the 20-county total of 1967. Garrett County, Maryland, was restored to the list of high producers after having fallen below the 50 thousand cord production level in 1967. Centre and Huntingdon Counties in Pennsylvania and Essex County, New York, fell below the 50 thousand cord mark in 1968.

Counties that produced over 50 thousand cords of roundwood pulpwood in 1968 are listed below:

<i>County and State</i>	<i>Thousand Cords</i>
1. Aroostook, Maine	536.1
2. Piscataquis, Maine	439.4
3. Penobscot, Maine	375.4
4. Washington, Maine	339.4
5. Somerset, Maine	334.0
6. Oxford, Maine	222.5
7. Coos, New Hampshire	178.4
8. Franklin, Maine	142.3
9. Sussex, Delaware	76.6
10. Waldo, Maine	73.1
11. Clearfield, Pennsylvania	65.2
12. Essex, Vermont	63.3
13. Lincoln, Maine	59.7
14. Hancock, Maine	55.6
15. Kennebec, Maine	55.5
16. Hampshire, West Virginia	51.5
17. Garrett, Maryland**	50.4

**County did not produce over 50 thousands cords in 1967 but has in other years.

Wood Chip Production Gains Over 32 Percent

The production of pulpwood chips, which are primarily produced from sawmill byproducts, rose from 710,300 cords in 1967 to 940,000 cords in 1968. These figures also include wood reported as "other wood-industry byproducts" in previous reports. They have been included with pulpwood chips for two reasons: first, this material generally constitutes only a small portion of all pulpwood produced; second, investigation has revealed that a substantial portion of this material is received by pulpmills as chips but is reported as other byproducts.

In addition to sawmill and other byproducts, increasing volumes of logs and tree-length material are being chipped for shipment to pulpmills. Some of this material may be low-quality sawlogs that are chipped rather than sawed, but some may be roundwood that is chipped before being shipped to the mill. Though at present such material constitutes only a fraction of the total chip production, considerable interest has been generated in the economics of this type of wood handling, and it may play an important role in the future.

Softwood chip production scored a comeback after declining in both 1966 and 1967. Production jumped from 189,300 cords in

1967 to 332,000 cords in 1968, a 75 percent increase. Although hardwood chip production increased 17 percent between 1967 and 1968, this represented a slowing down of hardwood chip production growth, which registered a 44 percent gain in the preceding year.

In the 5 years between 1963 and 1968, chip production from the 14 Northeastern States has grown from 340,800 cords to 940,700 cords. This represents a gain in percent of total production of from 7 percent in 1963 to nearly 16 percent in 1968.

A Glimpse at the Industry

One measure of the woodpulp industry's growth rate can be made by comparing its installed daily pulping capacity over the years. The following tabulation shows the change in the pulping capacities of active mills in the Northeast for the 10-year period between 1955 and 1965, and the three years between 1965 and 1968.

<i>State</i>	<i>1955 (tons/24 hours)</i>	<i>1965 (tons/24 hours)</i>	<i>Change (percent)</i>	<i>1968 (tons/24 hours)</i>	<i>Change (percent)</i>
Connecticut	20	30	+50	35	+17
Kentucky	—	—	—	(*)	—
Maine	4,366	6,725	+54	7,607	+13
Maryland	475	680	+43	989	+45
Massachusetts	115	50	-57	50	0
New Hampshire	1,110	890	-20	1,215	+37
New Jersey	563	345	-39	442	+28
New York	2,488	1,915	-23	2,085	+9
Ohio	310	1,225	+295	1,450	+18
Pennsylvania	1,163	1,830	+57	2,102	+15
Rhode Island	250	250	0	250	0
Vermont	105	85	-19	44	-48
All states	10,965	14,025	+28	16,269	+16

Source: Woodpulp Mills in the United States, 1955 and 1965, and Lockwood's Directory of Paper and Allied Trades, 1969.

*A new mill of unknown capacity operated during 1968.

Delaware and West Virginia are not included because they have no active woodpulp mills.

Pulpmill capacity in the Northeast has been growing at an accelerated rate in the last 3 years. Between 1955 and 1965 daily

ROUND PULPWOOD PRODUCTION IN THE NORTHEAST 1968

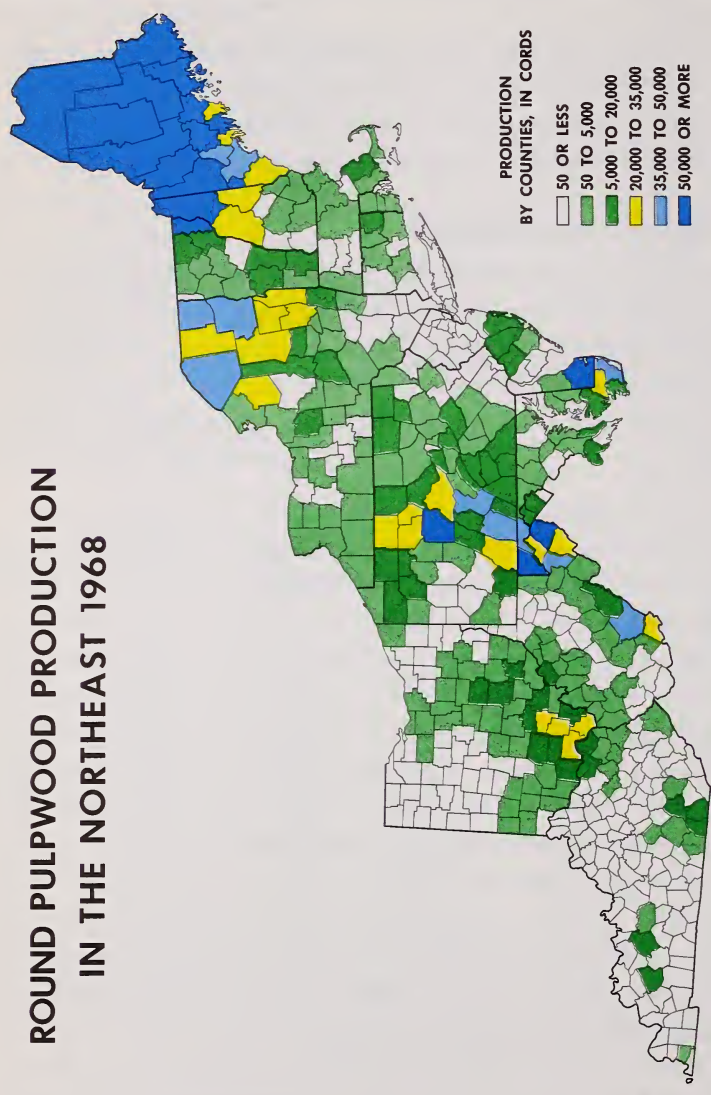


Figure 2.—The geographical pattern of round pulpwood production in the Northeast, 1968.

pulping capacity increased only 2.8 percent per year, while the 1965-68 period showed a 5.3 percent per year increase.

Nine of the 14 states have added to their installed daily capacity. Maryland and Ohio have shown the highest sustained rates over the 13-year period.

In the past 3 years, four older mills have been closed and dismantled, while four new ones have been built and are now operating. Probably more significant is the fact that 12 established mills have changed ownership. This type of consolidation has been occurring throughout the pulp industry in the United States.

At year's end eight new mill and mill-expansion projects were under way in the Northeast. Kentucky is scheduled for two new mills by 1970. Two Pennsylvania mills are expanding and increasing their capacities, and four New York mills are expanding or modernizing their existing plants.



**Table 1.—Total production of pulpwood in the Northeast,
by sources and states, 1968**

[In thousands of rough cords]¹

State	Source ²		
	From roundwood	From chips	All sources
Connecticut	13.7	—	13.7
Delaware	78.1	—	78.1
Kentucky	82.9	94.2	177.1
Maine	2,798.5	210.1	3,008.6
Maryland	217.3	98.6	315.9
Massachusetts	19.9	9.2	29.1
New Hampshire	249.9	85.6	335.5
New Jersey	45.2	1.8	47.0
New York	339.4	100.7	440.1
Ohio	232.6	33.5	266.1
Pennsylvania	526.8	159.0	685.8
Rhode Island	7.7	—	7.7
Vermont	120.8	28.6	149.4
West Virginia	288.1	119.4	407.5
All states	5,020.9	940.7	5,961.6

¹ 128 cubic feet of wood, bark, and airspace.

² Based upon form in which wood is received at the pulpmill.

Table 2.—*Total production and receipts of pulpwood in the Northeast, by states and species groups, 1968*

[In thousands of rough cords]

State	Total production		Total receipts		Production surplus (+) or deficit (—)
	Softwood	Hardwood	Softwood	Hardwood	
Connecticut	6.6	7.1	(D)	(D)	+ (D)
Delaware	74.9	3.2	—	—	+ 78.1
Kentucky	29.9	147.2	(D)	(D)	+ (D)
Maine	2,331.8	676.8	2,622.5	701.8	— 315.7
Maryland	195.3	120.6	121.6	291.8	— 97.5
Massachusetts	13.1	16.0	(D)	(D)	— (D)
New Hampshire	154.9	180.6	242.5	272.5	— 179.5
New Jersey	39.6	7.4	53.4	13.3	— 19.7
New York	95.4	344.7	183.8	427.0	— 170.7
Ohio	5.7	260.4	.8	363.9	— 98.6
Pennsylvania	69.8	616.0	248.6	616.3	— 179.1
Rhode Island	4.6	3.1	(D)	(D)	— (D)
Vermont	89.9	59.5	(D)	(D)	+ (D)
West Virginia	78.1	329.4	—	—	+ 407.5
All states	3,189.6	2,772.0	3,514.9	2,796.4	— 349.7

(D) Withheld to avoid disclosing data for individual mills.

Table 3.—Round pulpwood production in the Northeast, by states and species groups, 1968
[In thousands of rough cords]

State	Softwood				Hardwood			
	Cut and retained in state	Shipped to other states		Total softwood	Cut and retained in state	Shipped to other states		Total production
		In Northeast	Outside Northeast			In Northeast	Outside Northeast	
Connecticut	3.2	3.4	—	6.6	—	7.1	—	13.7
Delaware	—	26.0	48.9	74.9	—	3.2	—	78.1
Kentucky	—	1.5	25.0	26.5	6.6	29.7	20.1	82.9
Maine	2,124.6	27.7	—	2,152.3	599.6	46.6	—	2,798.5
Maryland	12.9	17.8	98.6	129.3	80.2	7.8	(*)	217.3
Massachusetts	—	13.1	—	13.1	1.1	5.7	—	19.9
New Hampshire	81.6	11.2	—	92.8	132.0	25.1	—	249.9
New Jersey	38.4	.3	—	38.7	6.4	.1	—	45.2
New York	87.2	2.0	5.0	94.2	227.7	3.8	13.7	339.4
Ohio	.5	5.2	—	5.7	225.1	.7	1.1	232.6
Pennsylvania	61.8	2.5	—	64.3	418.4	44.1	—	526.8
Rhode Island	4.6	—	—	4.6	3.1	—	—	7.7
Vermont	11.4	71.8	—	83.2	—	37.6	—	120.8
West Virginia	—	7.6	63.8	71.4	—	70.9	145.8	288.1
All states	2,426.2	190.1	241.3	2,857.6	1,700.2	282.4	180.7	5,020.9
								2,163.3

* Less than 50 cords.

Table 5.—Round pulpwood receipts in the Northeast, by states and species groups, 1968

[In thousands of rough cords]

State	Softwood				Hardwood				Total receipts		
	Cut and retained in state	Receipts from other states			Total softwood	Cut and retained in state	Receipts from other states			Total hardwood	
		In Northeast	Outside Northeast				In Northeast	Outside Northeast			
Connecticut	3.2	(D)	—	(D)	—	(D)	(D)	(D)	(D)	—	
Delaware	—	—	—	—	—	—	—	—	—	—	
Kentucky	—	(D)	—	(D)	6.6	(D)	(D)	(D)	(D)	—	
Maine	2,124.6	9.6	267.6	2,401.8	599.6	14.8	47.5	661.9	3,063.7	(D)	
Maryland	12.9	53.4	52.2	118.5	80.2	158.2	5.8	244.2	362.7	(D)	
Massachusetts	—	(D)	—	(D)	1.1	(D)	—	(D)	(D)	—	
New Hampshire	81.6	57.8	20.3	159.7	132.0	69.4	25.3	226.7	386.4	(D)	
New Jersey	38.4	—	—	38.4	6.4	—	—	6.4	44.8	—	
New York	87.2	39.9	55.1	182.2	227.7	21.9	64.1	313.7	495.9	(D)	
Ohio	.5	—	.1	.6	225.1	39.9	6.8	271.8	272.4	(D)	
Pennsylvania	61.8	65.7	75.3	202.8	418.8	15.2	17.1	450.7	653.5	(D)	
Rhode Island	4.6	(D)	—	(D)	3.1	(D)	—	(D)	(D)	—	
Vermont	11.4	(D)	—	(D)	—	(D)	—	(D)	(D)	—	
West Virginia	—	—	—	—	—	—	—	—	—	—	
All states	2,426.2	248.9	470.6	3,145.7	1,700.2	343.2	174.9	2,218.3	5,364.0	—	

(D) Withheld to avoid disclosing data for individual mills.

Table 6.—*Pulpwood chip receipts in the Northeast, by states and species groups, 1968¹*
[In thousands of rough cord equivalents]

State ²	Softwood				Hardwood				Total receipts	
	Produced and retained in state	Receipts from other states			Total softwood	Produced and retained in state	Receipts from other states			Total hardwood
		In the Northeast	Outside the Northeast				In the Northeast	Outside the Northeast		
Kentucky	—	—	—	—	(D)	(D)	(D)	(D)	(D)	
Maine	167.7	14.4	38.6	220.7	25.7	0.9	13.3	39.9	260.6	
Maryland	(*)	3.1	—	3.1	6.5	39.9	1.2	47.6	50.7	
Massachusetts	—	—	—	—	(D)	(D)	(D)	(D)	(D)	
New Hampshire	47.7	18.5	16.6	82.8	22.6	11.7	11.5	45.8	128.6	
New Jersey	.9	14.1	—	15.0	.9	6.0	—	6.9	21.9	
New York	1.1	—	.5	1.6	76.7	25.4	11.2	113.3	114.9	
Ohio	—	.2	—	.2	33.5	58.6	—	92.1	92.3	
Pennsylvania	5.3	24.7	15.8	45.8	134.8	30.7	.1	165.6	211.4	
All states	222.7	75.0	71.5	369.2	335.4	179.4	63.3	578.1	947.3	

¹ Includes sawmill slabs and edgings, veneer cores, and post and pole trimmings.

² States with no receipts are omitted.

(D) Withheld to avoid disclosing data for individual mills.

* Less than 50 cords.

Table 7.—Round pulpwood receipts from states, outside the Northeast, by state (or province) of origin and species groups, 1968

[In thousands of rough cords]

Receiving state ¹	State (or province) of origin	Total softwood	Total hardwood	All species
Kentucky	Indiana	—	0.1	0.1
	Tennessee	—	8.2	8.2
Maine	New Brunswick	252.7	38.8	291.5
	Quebec	15.0	8.6	23.6
Maryland	Virginia	52.2	5.8	58.0
	New Brunswick	3.2	—	3.2
New Hampshire	Quebec	17.1	25.4	42.5
New York	Ontario	1.6	29.3	30.9
	Quebec	53.5	34.8	88.3
Ohio	Indiana	.1	1.9	2.0
	Tennessee	—	.3	.3
	Virginia	—	4.5	4.5
Pennsylvania	Ontario	62.4	—	62.4
	Virginia	12.9	3.0	15.9
Vermont	Quebec	6.0	—	6.0
All states	—	476.7	160.7	637.4

¹ States with no receipts are omitted.

Table 8.—Pulpwood chip receipts from outside the Northeast, by state (or province) of origin and species groups, 1968

[In thousands of rough cord equivalents]

Receiving state ¹	State (or province) of origin	Total softwood	Total hardwood	All species
Kentucky	Indiana	—	6.8	6.8
	Tennessee	—	19.2	19.2
Maine	New Brunswick	14.9	13.3	28.2
	Quebec	23.8	—	23.8
Maryland	Virginia	—	1.1	1.1
New Hampshire	Quebec	16.6	11.5	28.1
New York	New Brunswick	.2	—	.2
	Ontario	(*)	4.0	4.0
	Quebec	.3	7.2	7.5
Pennsylvania	Virginia	15.8	.1	15.9
All states	—	71.6	63.2	134.8

¹ States with no receipts are omitted.

* Less than 50 cords.

Bones, James T., and Neal P. Kingsley.

1969. Pulpwood production in the Northeast—1968. NE.
Forest Exp. Sta., Upper Darby, Pa.
30 pp., illus. (USDA Forest Serv. Resource Bull. NE-15)

An annual report based upon canvasses of pulpwood production in the Northeast, containing data about pulpwood production from roundwood in the 14 Northeastern States by counties and species groups, and pulpwood chip production from plant residues. Comparisons are made with the previous year's production data. Trends in pulpwood production for the past six years are shown.

861.0(74)--(083.4) : 721 : 792

861.0(74)--(083.4) : 721 : 792

An annual report based upon canvasses of pulpwood production in the Northeast, containing data about pulpwood production from roundwood in the 14 Northeastern States by counties and species groups, and pulpwood chip production from plant residues. Comparisons are made with the previous year's production data. Trends in pulpwood production for the past six years are shown.

Bones, James T., and Neal P. Kingsley.
1969. Pulpwood production in the Northeast—1968. NE.
Forest Exp. Sta., Upper Darby, Pa.
30 pp., illus. (USDA Forest Serv. Resource Bull. NE-15)

Bones, James T., and Neal P. Kingsley.

1969. Pulpwood production in the Northeast—1968. NE. Forest Exp. Sta., Upper Darby, Pa.

30 pp., illus. (USDA Forest Serv. Resource Bull. NE-15)

An annual report based upon canvasses of pulpwood production in the Northeast, containing data about pulpwood production from roundwood in the 14 Northeastern States by counties and species groups, and pulpwood chip production from plant residues. Comparisons are made with the previous year's production data. Trends in pulpwood production for the past six years are shown.

861.0(74)--(083.4) : 721 : 792

861.0(74)--(083.4) : 721 : 792

Bones, James T., and Neal P. Kingsley.
1969. Pulpwood production in the Northeast—1968. NE. Forest Exp. Sta., Upper Darby, Pa.
30 pp., illus. (USDA Forest Serv. Resource Bull. NE-15)

An annual report based upon canvasses of pulpwood production in the Northeast, containing data about pulpwood production from roundwood in the 14 Northeastern States by counties and species groups, and pulpwood chip production from plant residues. Comparisons are made with the previous year's production data. Trends in pulpwood production for the past six years are shown.

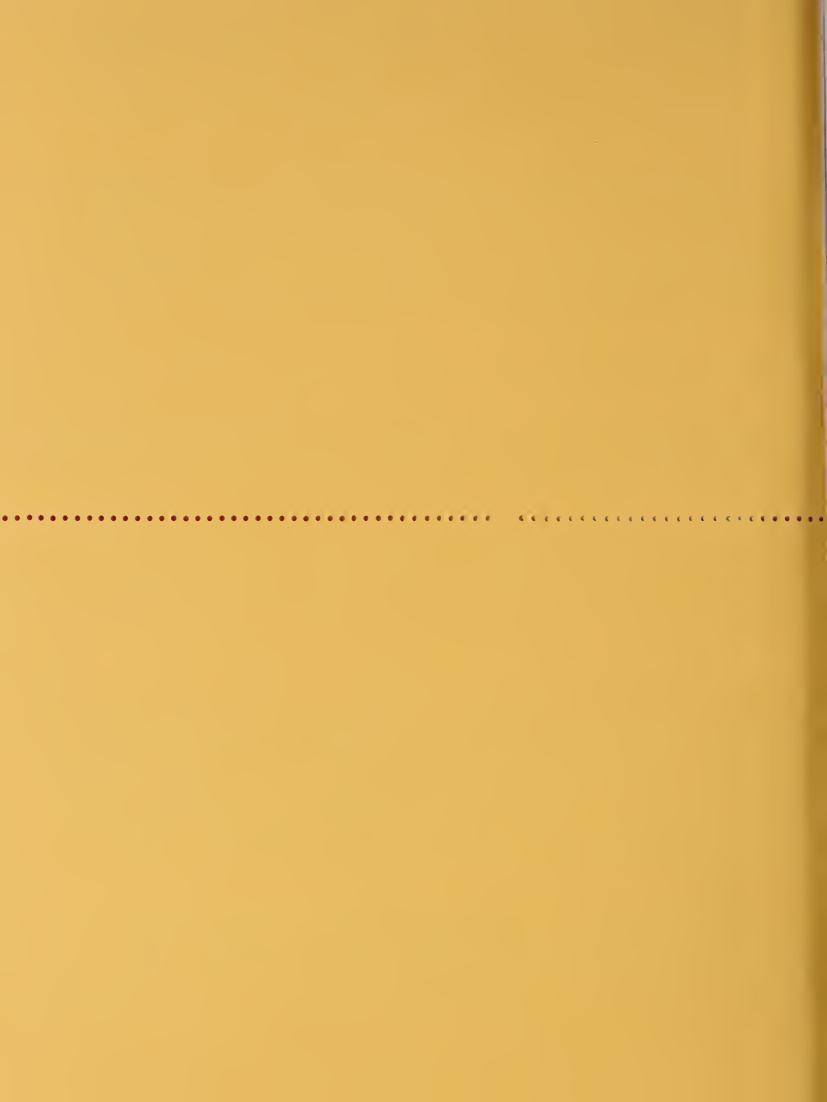


Table 9.—Round pulpwood production in the Northeast, by states and species groups, 1968

[In thousands of rough cords]

State	Softwood			Hardwood			All species
	Spruce and fir	Hemlock and tamarack	Pine	Aspen and yellow-poplar	Oak and hickory	Other hardwoods ¹	
Connecticut	—	—	6.6	—	2.8	4.3	13.7
Delaware	—	—	74.9	—	(*)	3.2	78.1
Kentucky	(*)	(*)	26.5	1.6	38.4	16.4	82.9
Maine	1,727.3	293.8	131.2	60.5	37.5	548.2	2,798.5
Maryland	.3	.5	128.5	9.4	40.2	38.4	217.3
Massachusetts	—	—	13.1	(*)	2.2	4.6	19.9
New Hampshire	75.2	9.1	8.5	1.1	—	156.0	249.9
New Jersey	—	—	38.7	—	—	6.5	45.2
New York	55.8	11.3	27.1	21.1	5.2	218.9	339.4
Ohio	.2	.2	5.3	5.8	202.5	18.6	232.6
Pennsylvania	.2	6.8	57.3	29.9	180.6	252.0	526.8
Rhode Island	—	—	4.6	—	2.2	.9	7.7
Vermont	77.3	2.2	3.7	2.3	(*)	35.3	120.8
West Virginia	9.0	5.5	56.9	20.0	137.9	58.8	288.1
All states	1,945.3	329.4	582.9	151.7	649.5	1,362.1	5,020.9
							2,163.3

¹Chiefly maple species, beech, gums, elms, and birch species.

* Less than 50 cords.

Table 10.—Round pulpwood production in Southern New England, by states and counties and species groups, 1968

[In thousands of rough cords]

State and county ¹	Softwood			Hardwood					
	Spruce and fir	Hemlock and tamarack	Pine	Total	Aspen and yellow-poplar	Oak and hickory	Other hardwoods	Total	All species
Connecticut	—	—	6.6	6.6	—	2.8	4.3	7.1	13.7
Hartford	—	—	2.4	2.4	—	—	—	—	2.4
New London	—	—	.8	.8	—	.4	2.8	3.2	4.0
Windham	—	—	2.1	2.1	—	2.3	1.5	3.8	5.9
All others	—	—	1.3	1.3	—	.1	—	.1	1.4
Massachusetts	—	—	13.1	13.1	(*)	2.2	4.6	6.8	19.9
Berkshire	—	—	—	—	(*)	—	1.0	1.0	1.0
Bristol	—	—	3.0	3.0	—	.6	.6	1.2	4.2
Plymouth	—	—	9.7	9.7	—	1.6	1.9	3.5	13.2
All others	—	—	.4	.4	—	(*)	1.1	1.1	1.5
Rhode Island	—	—	4.6	4.6	—	2.2	.9	3.1	7.7
Kent	—	—	1.5	1.5	—	1.3	.4	1.7	3.2
Providence	—	—	2.5	2.5	—	.5	.3	.8	3.3
Washington	—	—	.6	.6	—	.4	.2	.6	1.2

¹ Counties with no production are omitted.

* Less than 50 cords.

Table 12.—Round pulpwood production in Kentucky, by counties and species groups, 1968
[In thousands of rough cords]

County ¹	Softwood			Hardwood			All species		
	Spruce and fir	Hemlock and tamarack	Pine	Total	Aspen and yellow-poplar	Oak and hickory		Other hardwoods	Total
Bath	(*)	(*)	0.6	0.6	—	—	0.6	0.6	1.2
Boyd	(*)	(*)	.2	.2	—	—	.1	.1	.3
Carter	—	—	(*)	(*)	—	1.3	—	1.3	1.3
Clay	—	—	—	—	(*)	.1	(*)	.1	.1
Daviess	—	—	—	—	—	—	(*)	(*)	(*)
Elliott	—	—	—	—	—	.3	—	.3	.3
Grayson	—	—	—	—	0.1	.2	(*)	.3	.3
Greenup	—	—	—	—	—	11.1	—	11.1	11.1
Hickman	—	—	—	—	—	—	1.1	1.1	1.1
Hopkins	—	—	—	—	1.1	4.3	3.2	8.6	8.6
Laurel	—	—	6.6	6.6	—	2.7	.8	3.5	10.1
Lawrence	(*)	(*)	.2	.2	—	(*)	—	(*)	.2
Lewis	—	—	—	—	—	7.4	—	7.4	7.4
Lincnln	—	—	.3	.3	.1	3.2	.4	3.7	4.0
McCreary	—	—	5.2	5.2	.3	2.8	2.3	5.4	10.6
Ohio	—	—	—	—	—	—	6.6	6.6	6.6
Pike	—	—	—	—	(*)	.2	(*)	.2	.2
Pulaski	—	—	.9	.9	—	—	—	—	.9
Rowan	(*)	(*)	2.9	2.9	—	1.5	.3	1.8	4.7
Wayne	—	—	1.6	1.6	—	—	—	—	1.6
Whitley	—	—	8.0	8.0	(*)	3.3	1.0	4.3	12.3
Total	(*)	(*)	26.5	26.5	1.6	38.4	16.4	56.4	82.9

¹ Counties with no production are omitted.

* Less than 50 cords.

Table 13.—Round pulpwood production in Maine, by counties and species groups, 1968
[In thousands of rough cords]

County	Softwood				Hardwood			All species
	Spruce and fir	Hemlock and tamarack	Pine	Total	Aspen and yellow-poplar	Oak and hickory	Other hardwoods	
Androscoggin	3.9	4.2	18.9	27.0	0.1	1.1	20.1	48.3
Aroostook	460.0	20.1	.1	480.2	39.0	1.7	15.2	536.1
Cumberland	4.0	3.7	9.7	17.4	.1	1.7	25.5	44.7
Franklin	62.7	7.0	5.8	75.5	(*)	3.6	63.2	142.3
Hancock	44.5	3.9	2.5	50.9	—	1.5	3.2	55.6
Kennebec	6.4	6.0	15.3	27.7	(*)	1.8	26.0	55.5
Knox	15.5	2.3	3.6	21.4	—	.4	7.0	28.8
Lincoln	20.6	4.4	15.6	40.6	.1	1.0	18.0	59.7
Oxford	43.9	21.2	17.7	82.8	.7	7.0	132.0	222.5
Penobscot	188.9	69.2	1.9	260.0	15.4	6.2	93.8	375.4
Piscataquis	366.9	22.0	3.3	392.2	5.0	2.9	39.3	439.4
Sagadahoc	3.2	2.2	10.3	15.7	(*)	.5	5.6	21.8
Somerset	278.4	11.0	6.4	295.8	—	3.4	34.8	334.0
Waldo	23.6	11.5	7.8	42.9	(*)	2.0	28.2	73.1
Washington	203.3	103.9	8.2	315.4	.1	1.8	22.1	339.4
York	1.5	1.2	4.1	6.8	(*)	.9	14.2	21.9
Total	1,727.3	293.8	131.2	2,152.3	60.5	37.5	548.2	2,798.5

* Less than 50 cords.

Table 14.—Round pulpwood production in Maryland, by counties and species groups, 1968

[In thousands of rough cords]

County ¹	Softwood			Hardwood			All species		
	Spruce and fir	Hemlock and tamarack	Pine	Total	Aspen and yellow-poplar	Oak and hickory		Other hardwoods	Total
Allegany	0.1	0.2	2.5	2.8	3.8	15.3	15.0	34.1	36.9
Anne Arundel	(*)	(*)	2.3	2.3	—	(*)	—	(*)	2.3
Baltimore	—	—	.1	.1	—	.2	.1	.3	.4
Calvert	.1	.1	4.8	5.0	(*)	(*)	.1	.1	5.1
Caroline	—	—	4.1	4.1	—	(*)	(*)	(*)	4.1
Carroll	—	—	.6	.6	—	.3	.1	.4	1.0
Cecil	—	—	(*)	(*)	—	(*)	—	(*)	(*)
Charles	—	—	6.5	6.5	(*)	(*)	.3	.3	6.8
Dorchester	—	—	15.4	15.4	—	.2	—	.2	15.6
Frederick	—	—	—	—	(*)	.2	.2	.4	.4
Garrett	.1	.2	1.9	2.2	5.6	21.4	21.3	48.3	50.5
Harford	—	—	(*)	(*)	—	.1	(*)	.1	.1
Howard	—	—	.1	.1	—	.1	(*)	(*)	.2
Kent	—	—	—	—	(*)	(*)	(*)	(*)	(*)
Montgomery	—	—	(*)	(*)	—	—	—	—	(*)
Prince Georges	—	—	2.3	2.3	—	.2	.3	.5	2.8
Queen Annes	—	—	.1	.1	—	—	(*)	(*)	.1
Somerset	—	—	16.8	16.8	—	—	(*)	(*)	16.8
Talbot	—	—	(*)	(*)	—	—	(*)	(*)	(*)
Washington	(*)	(*)	1.2	1.2	(*)	1.8	.9	2.7	3.9
Wicomico	—	—	32.5	32.5	—	.2	.1	.3	32.8
Worcester	—	—	37.3	37.3	—	.2	(*)	.2	37.5
Total	0.3	0.5	128.5	129.3	9.4	40.2	38.4	88.0	217.3

¹Counties with no production are omitted.

* Less than 50 cords.

Table 15.—Round pulpwood production in New Hampshire, by counties and species groups, 1968

[In thousands of rough cords]

County ¹	Softwood			Hardwood			All species		
	Spruce and fir	Hemlock and tamarack	Pine	Total	Aspen and yellow-poplar	Oak and hickory		Other hardwoods	Total
Belknap	(*)	(*)	(*)	(*)	—	—	—	—	(*)
Carroll	2.9	1.9	1.5	6.3	0.2	—	24.2	24.4	30.7
Cheshire	—	—	—	—	—	—	(*)	(*)	(*)
Coos	60.9	4.6	3.6	69.1	.8	—	108.5	109.3	178.4
Grafton	10.4	2.3	2.7	15.4	.1	—	12.6	12.7	28.1
Hillsboro	1.0	.2	.4	1.6	—	—	1.4	1.4	3.0
Merrimack	(*)	.1	.2	.3	(*)	—	3.8	3.8	4.1
Rockingham	—	—	—	—	—	—	.8	.8	.8
Strafford	—	(*)	.1	.1	—	—	4.7	4.7	4.8
Total	75.2	9.1	8.5	92.8	1.1	—	156.0	157.1	249.9

¹Counties with no production are omitted.

* Less than 50 cords.

Herkimer	6.9	.2	(*)	7.1	(*)	(*)	.9	8.0
Jefferson	.1	.3	1.2	1.6	1.1	—	2.2	3.9
Lewis	2.6	2.0	.3	4.9	1.1	—	14.3	20.3
Livingston	—	—	—	—	—	—	(*)	(*)
Madison	.2	—	(*)	.2	—	—	.1	.3
Montgomery	(*)	.3	(*)	.3	—	.1	.8	1.2
Niagara	—	—	—	—	—	—	.3	.3
Onondaga	.5	.5	2.6	3.6	.2	—	1.2	5.0
Ontario	(*)	—	.1	.1	—	—	—	.1
Orleans	—	—	—	—	—	—	.4	.4
Oswego	(*)	.2	.7	.9	(*)	—	3.5	4.4
Otsego	.4	(*)	7.3	7.7	(*)	—	.5	8.2
Rensselaer	—	—	—	—	(*)	.6	6.5	6.5
St. Lawrence	14.0	3.6	5.7	23.3	7.0	—	11.8	35.1
Saratoga	.2	—	1.1	1.3	.9	1.4	20.0	21.3
Schenectady	—	—	—	—	(*)	(*)	.2	.2
Schoharie	—	—	—	—	—	.1	1.5	1.5
Steuben	—	—	.3	.3	(*)	—	(*)	.3
Sullivan	—	—	—	—	—	—	.1	.1
Tioga	—	—	—	—	—	—	(*)	(*)
Tompkins	(*)	—	—	(*)	—	—	—	(*)
Warren	.5	—	—	.5	.6	.7	28.4	28.9
Washington	.3	—	—	.3	.6	.9	27.0	27.3
Wayne	—	—	—	—	—	—	.1	.1
Wyoming	—	—	—	—	—	—	.3	.4
Yates	—	—	—	—	—	—	(*)	(*)
Total	55.8	11.3	27.1	94.2	21.1	5.2	245.2	339.4

¹ Counties with no production are omitted.

* Less than 50 cords.

Table 17.—Round pulpwood production in Ohio, by counties and species groups, 1968

[In thousands of rough cords]

County ¹	Softwood				Hardwood			All species
	Spruce and fir	Hemlock and tamarack	Pine	Total	Aspen and yellow-poplar	Oak and hickory	Other hardwoods	
Adams	—	—	—	—	—	7.4	0.1	7.5
Ashland	—	—	0.1	0.1	—	.3	.1	.4
Ashtabula	—	—	—	—	—	—	.5	.5
Athens	—	—	—	—	0.8	7.1	1.6	9.5
Belmont	—	—	—	—	—	1.1	(*)	1.1
Brown	—	—	(*)	(*)	(*)	.5	.2	.7
Butler	—	—	(*)	(*)	.1	.4	.4	.9
Carroll	—	—	—	—	—	.1	—	.1
Clermont	—	—	(*)	(*)	(*)	.2	.3	.5
Clinton	—	—	.1	.1	.9	1.2	1.2	3.3
Coshocton	—	—	—	—	—	8.0	.8	8.8
Erie	—	—	—	—	.1	.4	.5	1.0
Fairfield	—	—	—	—	.1	.8	.2	1.1
Franklin	—	—	—	—	(*)	.3	.1	.4
Gallia	0.2	0.1	2.3	2.6	(*)	12.8	(*)	15.4
Greene	—	—	(*)	(*)	(*)	.1	.2	.3
Guernsey	—	—	—	—	—	4.0	.6	4.6
Harrison	—	—	(*)	(*)	—	—	(*)	(*)
Highland	—	—	—	—	.1	3.9	.3	4.3
Hocking	—	—	—	—	1.7	12.0	3.4	17.1
Holmes	—	—	—	—	—	1.0	.2	1.2
Huron	—	—	—	—	.1	.8	1.0	1.9
Jackson	(*)	.1	1.0	1.1	—	23.6	—	24.7

Jefferson	—	(*)	—	(*)	—	—	—	—	(*)
Knox	(*)	—	.6	—	1.	2.5	—	2.7	2.7
Lawrence	—	(*)	.6	—	—	24.4	—	24.4	25.0
Licking	—	(*)	—	—	—	3.5	—	3.7	3.7
Lorain	—	—	—	—	—	.5	—	1.1	1.1
Meigs	(*)	—	.5	—	—	.4	—	.4	.9
Monroe	(*)	.1	—	—	—	(*)	—	(*)	.1
Montgomery	—	(*)	.1	.2	.2	.3	.5	1.0	1.0
Morgan	—	(*)	—	—	—	.7	—	.7	.7
Morrow	—	—	—	—	—	(*)	(*)	(*)	(*)
Muskingum	—	—	—	—	—	6.0	.1	6.1	6.1
Noble	—	(*)	—	—	.2	4.4	1.1	5.7	5.7
Perry	—	—	—	(*)	(*)	.5	.1	.6	.6
Pickaway	—	—	—	—	.2	1.3	.4	1.9	1.9
Pike	—	—	—	—	.1	11.0	1.0	12.1	12.1
Preble	—	.1	—	—	(*)	.2	.2	.4	.5
Richland	—	—	—	—	—	(*)	(*)	(*)	(*)
Ross	—	(*)	—	—	.2	12.5	.4	13.1	13.1
Scioto	(*)	(*)	—	(*)	.3	25.6	.5	26.4	26.4
Seneca	—	—	—	—	.1	.4	.4	.9	.9
Stark	—	—	—	—	—	.3	.1	.4	.4
Tuscarawas	—	—	—	—	—	1.5	.3	1.8	1.8
Vinton	—	—	—	—	.3	19.6	.5	20.4	20.4
Warren	—	.1	—	—	.2	.2	.3	.7	.8
Washington	—	.4	—	—	—	.6	.1	.7	1.1
Wayne	(*)	—	—	—	—	.1	(*)	.1	.1
Wyandot	—	—	—	—	—	—	(*)	(*)	(*)
Total	0.2	0.2	5.3	5.7	5.8	202.5	18.6	226.9	232.6

¹ Counties with no production are omitted.

* Less than 50 cords.

Table 18.—Round pulpwood production in Pennsylvania, by counties and species groups, 1968

[In thousands of rough cords]

County ¹	Softwood			Total	Hardwood			Total	All species
	Spruce and fir	Hemlock and tamarack	Pine		Aspen and yellow-poplar	Oak and hickory	Other hardwoods		
Adams	—	—	1.1 (*)	—	5.2	2.6	7.8	8.9 (*)	
Armstrong	—	—	8.3	—	—	—	—	45.7	
Bedford	0.2	0.7	.1	6.2	13.9	16.4	36.5	.1	
Berks	—	—	.5	—	—	—	—	16.7	
Blair	—	.1	—	.1	10.8	5.2	16.1	5.8	
Bradford	—	—	—	.9	—	4.9	5.8	5.7	
Cambria	—	(*)	.7	.4	2.4	2.2	5.0	20.4	
Cameron	—	—	—	5.5	6.0	8.9	20.4	27.3	
Centre	—	1.3	3.2 (*)	.6	15.6	6.6	22.8	(*)	
Chester	—	—	.1	—	—	—	—	1.5	
Clarion	—	—	.1	—	(*)	1.4	1.4	65.2	
Clearfield	—	2.4	5.5	5.7	24.5	27.1	57.3	9.1	
Clinton	—	.3	1.5	.5	5.1	1.7	7.3	4.9	
Columbia	—	—	.4	.1	2.8	1.6	4.5	7.5	
Crawford	—	—	—	(*)	—	7.5	7.5	7.4	
Cumberland	—	—	.6	—	4.5	2.3	6.8	2.1	
Dauphin	—	—	.3	—	1.0	.8	1.8	31.3	
Elk	—	(*)	4.0	1.4	3.3	22.6	27.3	3.8	
Erie	—	—	—	—	—	3.8	3.8	7.3	
Fayette	(*)	(*)	(*)	1.1	1.4	4.8	7.3	11.7	
Forest	—	—	4.4	—	.8	6.5	7.3	16.2	
Franklin	—	(*)	1.5	(*)	9.6	5.1	14.7	12.2	
Fulton	—	(*)	3.1	(*)	6.0	3.1	9.1	46.8	
Huntington	—	1.7	10.4	.5	20.6	13.6	34.7		

Indiana	—	(*)	.4	.4	(*)	.5	.5	1.0	1.4
Jefferson	—	—	.1	.1	.3	.9	2.4	3.6	3.7
Juniata	—	.1	1.8	1.7	(*)	3.9	1.8	5.7	7.5
Lackawanna	—	—	—	—	(*)	—	(*)	(*)	(*)
Lancaster	(*)	(*)	.1	.1	—	.9	.5	1.4	1.5
Lebanon	—	—	—	—	—	.7	.7	1.4	1.4
Luzerne	—	—	.2	.2	.1	.8	2.8	3.7	3.9
Lycoming	—	.1	.3	.2	.2	.3	.3	.8	1.1
McKean	—	—	.8	.8	(*)	(*)	31.1	31.1	31.9
Mercer	—	—	—	—	—	—	.2	.2	.2
Mifflin	—	—	(*)	(*)	—	.1	(*)	.1	.1
Monroe	—	—	—	—	—	.2	.1	.3	.3
Montour	—	—	.1	.1	—	.7	.3	1.0	1.1
Northampton	—	—	(*)	(*)	—	—	—	—	(*)
Northumberland	—	—	1.2	1.2	—	2.2	1.8	4.0	5.2
Perry	—	—	1.3	1.3	—	4.2	1.5	5.7	7.0
Potter	—	—	.2	.2	2.	—	8.1	8.3	8.5
Schuylkill	—	—	.7	.7	—	3.5	1.7	5.2	5.9
Snyder	—	—	1.1	1.1	—	2.0	1.0	3.0	4.1
Somerset	(*)	.1	1.2	1.2	3.7	7.9	11.6	23.2	24.4
Sullivan	—	—	—	—	.4	—	2.6	3.0	3.0
Susquehanna	—	—	—	—	.7	—	4.6	5.3	5.3
Tioga	—	(*)	(*)	(*)	.4	—	1.6	2.0	2.0
Union	—	—	.9	.9	—	3.9	.7	4.6	5.5
Venango	—	—	.1	.1	—	7.5	7.5	15.0	15.1
Warren	—	—	.8	.8	(*)	2.4	9.7	12.1	12.9
Washington	—	—	(*)	(*)	—	.1	—	.1	.1
Wayne	—	—	—	—	.2	—	3.2	3.4	3.4
Wyoming	—	—	(*)	(*)	.7	.1	4.9	5.7	5.7
York	—	—	.6	.6	—	4.3	2.1	6.4	7.0
Total	0.2	6.8	57.3	64.3	29.9	180.6	252.0	462.5	526.8

¹ Counties with no production are omitted.
* Less than 50 cords.

Table 19.—Round pulpwood production in Vermont, by counties and species groups, 1968
[In thousands of rough cords]

County ¹	Softwood			Hardwood			All species	
	Spruce and fir	Hemlock and tamarack	Pine	Total	Aspen and yellow-poplar	Oak and hickory		Other hardwoods
Addison	0.9	—	—	0.9	0.1	—	2.3	2.4
Bennington	—	—	—	—	.1	(*)	2.7	2.8
Caledonia	9.9	0.8	0.4	11.1	(*)	—	.8	.8
Chittendon	.1	—	—	.1	.2	—	1.3	1.5
Essex	40.0	.8	.4	41.2	.2	—	21.9	22.1
Franklin	1.0	—	2.1	3.1	—	—	.4	.4
Lamoille	2.7	.1	—	2.8	—	—	.2	.2
Orange	.8	.1	.6	1.5	.1	—	.2	.3
Orleans	8.5	.4	.1	9.0	(*)	—	1.0	1.0
Rutland	3.3	—	—	3.3	.1	(*)	3.3	3.4
Washington	1.8	—	—	1.8	—	—	.2	.2
Windham	3.9	(*)	(*)	3.9	1.4	—	.1	1.5
Windsor	4.4	(*)	.1	4.5	.1	—	.9	1.0
Total	77.3	2.2	3.7	83.2	2.3	(*)	35.3	37.6
								120.8

¹Counties with no production are omitted.

* Less than 50 cords.

Table 20.—Round pulpwood production in West Virginia, by counties and species groups, 1968

[In thousands of rough cords]

County ¹	Softwoods			Hardwoods			All species		
	Spruce and fir	Hemlock and tamarack	Pine	Total	Aspen and yellow-poplar	Oak and hickory		Other hardwoods	Total
Berkeley	(*)	(*)	6.2	6.2	(*)	2.9	1.0	3.9	10.1
Boone	—	—	(*)	(*)	—	.5	.2	.7	.7
Braxton	—	—	(*)	(*)	(*)	(*)	(*)	(*)	(*)
Brooke	—	—	(*)	(*)	—	—	—	—	(*)
Cabell	0.1	(*)	.3	.4	0.2	1.5	.4	2.1	2.5
Calhoun	(*)	(*)	.2	.2	—	(*)	(*)	(*)	.2
Doddridge	.1	0.1	.3	.5	(*)	(*)	(*)	(*)	.5
Fayette	—	.1	.1	.2	—	.6	.2	.8	1.0
Gilmer	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
Grant	1.1	.6	4.2	5.9	5.4	17.2	10.1	32.7	38.6
Greenbrier	—	1.0	1.5	2.5	—	27.6	8.4	36.0	38.5
Hampshire	1.9	.9	11.3	14.1	5.4	21.0	11.0	37.4	51.5
Hancock	—	—	—	—	(*)	(*)	(*)	(*)	(*)
Hardy	1.0	.5	3.5	5.0	2.8	10.2	5.6	18.6	23.6
Harrison	—	(*)	(*)	(*)	—	—	—	—	(*)
Jackson	.4	.2	1.6	2.2	(*)	.1	(*)	.1	2.3
Jefferson	(*)	—	(*)	(*)	(*)	(*)	(*)	(*)	(*)
Kanawha	(*)	(*)	(*)	(*)	—	—	—	—	(*)
Lincoln	.1	(*)	.1	.2	(*)	(*)	(*)	(*)	.2
Marion	—	—	(*)	(*)	—	—	—	—	(*)
Marshall	—	—	—	—	—	(*)	(*)	(*)	(*)
Mason	.7	.3	2.4	3.4	(*)	.1	.1	.2	3.6
Mercer	—	—	(*)	(*)	—	—	—	—	(*)
Mineral	.6	.3	2.0	2.9	3.7	13.8	7.5	25.0	27.9

CONTINUED

Table 20.—Continued

County ¹	Softwoods			Hardwoods			All species		
	Spruce and fir	Hemlock and tamarack	Pine	Total	Aspen and yellow-poplar	Oak and hickory		Other hardwoods	Total
Monroe	(*)	(*)	3.0	3.0	(*)	17.7	5.4	23.1	26.1
Morgan	.2	.1	8.2	8.5	.2	5.4	2.3	7.9	16.4
Nicholas	.1	(*)	.1	.2	.2	.5	.3	1.0	1.2
Ohio	(*)	(*)	(*)	(*)	—	—	—	—	(*)
Pendleton	.1	(*)	.7	.8	.3	1.2	.7	2.2	3.0
Pleasants	.2	.1	.8	1.1	—	.1	.1	.2	1.3
Pocahontas	.2	.1	1.6	1.9	.4	7.9	2.7	11.0	12.9
Preston	(*)	(*)	(*)	(*)	.3	3.2	.5	4.0	4.0
Putnam	.5	.3	1.9	2.7	(*)	(*)	(*)	(*)	2.7
Raleigh	—	—	(*)	(*)	(*)	(*)	(*)	(*)	(*)
Randolph	.1	.1	.2	.4	.3	1.0	.5	1.8	2.2
Ritchie	.2	.1	.6	.9	—	—	(*)	(*)	.9
Roane	(*)	(*)	.2	.2	—	(*)	(*)	(*)	.2
Summers	—	—	.6	.6	—	.9	.4	1.3	1.9
Taylor	(*)	(*)	(*)	(*)	—	—	—	—	(*)
Tucker	(*)	(*)	.3	.3	.4	2.3	.7	3.4	3.7
Tyler	(*)	(*)	.1	.1	—	—	—	—	.1
Wayne	—	—	.1	.1	.3	1.9	.5	2.7	2.8
Webster	—	—	(*)	(*)	(*)	.1	(*)	.1	.1
Wetzel	(*)	(*)	(*)	(*)	—	(*)	(*)	(*)	(*)
Wirt	.2	.1	7.	1.0	(*)	(*)	(*)	(*)	1.0
Wood	1.2	.6	4.1	5.9	.1	.2	.2	.5	6.4
Total	9.0	5.5	56.9	71.4	20.0	137.9	58.8	216.7	288.1

¹ Counties with no production are omitted.

* Less than 50 cords.





THE FOREST SERVICE of the U. S. Department of Agriculture is dedicated to the principle of multiple use management of the Nation's forest resources for sustained yields of wood, water, forage, wildlife, and recreation. Through forestry research, cooperation with the States and private forest owners, and management of the National Forests and National Grasslands, it strives — as directed by Congress — to provide increasingly greater service to a growing Nation.